CLAIMS

What is claimed is:

1. A machine-implemented method, comprising:

establishing, within a global operating system environment provided by an operating system, a non-global partition which serves to isolate processes running within the non-global partition from other non-global partitions within the global operating system environment;

associating a first resource limit with the non-global partition, wherein the first resource limit indicates a maximum amount of a particular resource that can be allocated to the non-global partition; and

associating a second resource limit with a group of one or more processes within the non-global partition, wherein the second resource limit indicates a maximum amount of the particular resource that can be allocated to the group of one or more processes.

2. The method of Claim 1, wherein a global partition administrator sets the first resource limit.

3. The method of Claim 1, wherein a non-global partition administrator sets the second resource limit.

4. The method of Claim 1, further comprising:

receiving a resource allocation request for the particular resource from a process executing in the group of one or more processes;

determining an amount of the particular resource that can be allocated; and

allocating the determined amount to the group of one or more processes .

5. The method of Claim 4, wherein determining further comprises:

calculating an available amount of the particular resource, and wherein if the resource allocation request is less than or equal to the available amount, then the determined amount is set to the amount of the resource allocation request.

6. The method of Claim 5, wherein if the resource allocation request is greater than the available amount, then the determined amount is set to the available amount.

7. The method of Claim 5, wherein if the resource allocation request is greater than the available amount, then the determined amount is set to zero.

8. The method of Claim 5, wherein calculating further comprises:

calculating a first amount by subtracting the total amount of the particular resource allocated to the non-global partition from the first resource limit;

calculating a second amount by subtracting the total amount of the particular resource allocated to the group of one or more processes from the second resource limit; and

setting the available amount to the lower of the first amount and the second amount.

9. A machine-readable medium, comprising:

establishing, within a global operating system environment provided by an operating system, a non-global partition which serves to isolate processes running within the non-global partition from other non-global partitions within the global operating system environment;

associating a first resource limit with the non-global partition, wherein the first resource limit indicates a maximum amount of a particular resource that can be allocated to the non-global partition; and

associating a second resource limit with a group of one or more processes within the non-global partition, wherein the second resource limit indicates a maximum amount of the particular resource that can be allocated to the group of one or more processes.

10. The machine-readable medium of Claim 9, wherein a global administrator sets the first resource limit.

11. The machine-readable medium of Claim 9, wherein a non-global administrator sets the second resource limit.

12. The machine-readable medium of Claim 9, further comprising:

receiving a resource allocation request for the particular resource from a process executing in the group of one or more processes;

determining an amount of the particular resource that can be allocated; and

allocating the determined amount to the group of one or more processes .

13. The machine-readable medium of Claim 12, wherein determining further comprises:

calculating an available amount of the particular resource, and wherein if the resource allocation request is less than or equal to the available amount, then the determined amount is set to the amount of the resource allocation request.

14. The machine-readable medium of Claim 13, wherein if the resource allocation request is greater than the available amount, then the determined amount is set to the available amount.

15. The machine-readable medium of Claim 13, wherein if the resource allocation request is greater than the available amount, then the determined amount is set to zero.

16. The machine-readable medium of Claim 13, wherein calculating further comprises:

calculating a first amount by subtracting the total amount of the particular resource allocated to the non-global partition from the first resource limit;

calculating a second amount by subtracting the total amount of the particular resource allocated to the group of one or more processes from the second resource limit; and

setting the available amount to the lower of the first amount and the second amount.

17. An apparatus, comprising:

a mechanism for establishing, within a global operating system environment provided by an operating system, a non-global partition which serves to isolate processes running within the non-global partition from other non-global partitions within the global operating system environment;

a mechanism for associating a first resource limit with the non-global partition, wherein the first resource limit indicates a maximum amount of a particular resource that can be allocated to the non-global partition; and

a mechanism for associating a second resource limit with a group of one or more processes within the non-global partition, wherein the second resource limit indicates a maximum amount of the particular resource that can be allocated to the group of one or more processes.

18. The apparatus of Claim 17, wherein a global administrator sets the first resource limit.

19. The apparatus of Claim 17, wherein a non-global administrator sets the second resource limit.

20. The apparatus of Claim 17, further comprising:

a mechanism for receiving a resource allocation request for the particular resource from a process executing in the group of one or more processes;

a mechanism for determining an amount of the particular resource that can be allocated; and

a mechanism for allocating the determined amount to the group of one or more processes .

21. The apparatus of Claim 20, wherein determining further comprises:

a mechanism for calculating an available amount of the particular resource, and wherein if the resource allocation request is less than or equal to the available amount, then the determined amount is set to the amount of the resource allocation request.

22. The method of Claim 21, wherein if the resource allocation request is greater than the available amount, then the determined amount is set to the available amount.

23. The method of Claim 21, wherein if the resource allocation request is greater than the available amount, then the determined amount is set to zero.

24. The apparatus of Claim 21, wherein calculating further comprises:

a mechanism for calculating a first amount by subtracting the total amount of the particular resource allocated to the non-global partition from the first resource limit;

a mechanism for calculating a second amount by subtracting the total amount of the particular resource allocated to the group of one or more processes from the second resource limit; and

a mechanism for setting the available amount to the lower of the first amount and the second amount.